

Appl. No. 10/076,516
Amendment dated: August 4, 2003
Reply to OA of: April 3, 2003

REMARKS

Applicants have amended the specification at page 40 to correct a minor typographical error in that the word "not" was omitted and this minor amendment corrected the omission. The correction of the specification is self-explanatory as would be appreciated by one of ordinary skill in the art and is clearly supported by the priority document of the subject application (Japanese Patent Appl. No.: 2001-195827). The corrected portion of the specification of the present invention corresponds to page 29, lines 20 and 21 of the submitted certified copy of Japanese Patent Appl. No.: 2001-195827, which reads "The spring member 9411 is not limited to the coil-shaped spring of Fig. 13.".

Applicants have amended Figure 17A as indicated on the attached "Annotated Sheet Showing Changes" and a "Replacement Sheet" has also been attached at the end of the Amendment for the Examiner's consideration and approval. This serves simply to make a correction which would be appreciated by one of ordinary skill in the art. Accordingly, correction is most respectfully requested.

Applicants have amended claims 1 and 5 and added new claims 25-29 to improve the clarity of the claimed subject matter and to place the application fully in condition for allowance. All of the amendments are fully supported by the original disclosure of this application and therefore do not constitute the introduction of any new matter into this case. The claims now remaining in the application under consideration are claims 1-17 and 25-29. Applicants most respectfully submit that all the claims now present in the application are in full compliance with 35 U.S.C. §112 and are clearly patentable over the references of record.

Claim Rejections under 35 U.S.C. 103

The rejection of claims 1 to 17 under 35 U.S.C. Section 103(a) as being unpatentable over USPN 4,982,134 (Aono) in view of USPN 5,619,098 (Toki) has been carefully considered but is most respectfully traversed

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Applicants wish to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP § 2143. This section states that to establish a prima facie case of obviousness, three basic criteria first must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Section 2143.03 states that all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants most respectfully submit that Aono and Toki, alone or in combination fail to disclose or suggest the following features of the presently claimed invention:

- I. in which one end of the linear member 16 is interposed between the additional member 17 and the metal film 12, as recited in claim 1 (and supported by page 15, lines 15 to 17 and Fig. 1B of Applicants' specification); and one end of the linear member 16 is directly connected to the metal film 12 (and supported by page 15, lines 15 to 17 and Figs. 1A and 1B of Applicants' specification) and their connection is carried out by welding the additional member 17 to one end of the linear member 16 located on the metal film, as recited in claim 25 (see page 15, lines 17-19 and Fig. 1B).

(On the contrary, Aono does not disclose the metal film and Toki's cathode electrode 8 is fixed to the support 11 welded onto the spacer frame 9, as pointed out by the Examiner. Moreover, the Examiner's attention is directed to In re Fritch, 23 USPQ 1780, 1784(Fed Cir. 1992) ("It is impermissible to engage in hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps."). It appears that the Examiner considers the spacer frame 9 and the support 11 of Toki to correspond to the metal film and the additional member of the present invention, respectively. However, Toki's cathode electrode 8 is neither placed between the support 11 and the spacer frame 9 nor directly connected to the spacer frame 9 as shown in Figs. 8 and 9. Further, Toki's support 11 is no more than the anchor 54 or the support 55 shown in, e.g., Fig. 14B as the prior art of the present invention. Accordingly, Toki has problems identical to those of the prior art of the present invention as disclosed in page 6, line 18 to page 7, line 2. That is, Toki's display device certainly has shortcomings in that the supporting member such as the anchor or the support is of a complicate shape due to the three-dimensional shapes, increasing factory expenses thereof and making a mounting process of the filament difficult. Additionally, such supporting members should have a predetermined strength, setting a limit on the miniaturization of the device. In other words, it is difficult to make the display device thin. Further, since the area for mounting such supporting member is large, the space excepting for the display area, so-called dead space, is enlarged.)

- II. in which a part of the linear member is a tension force applying portion for exerting a tension force and the tension force applying portion has a coil portion, as recited in claims 26 and 27 (and supported by page 15, lines 2 to 4).

(On the contrary, Aono and Toki have separate tension force applying members, i.e., a spring 18 in Aono and a support 11 in Toki. Again, the necessary motivation is missing and cannot be supplied by Applicants' teaching.)

- III. in which the electron tube defined in claim 5 includes the linear member divided into a body and a fixed portion for fixedly attaching the body to the metal film, and the additional member, formed on the fixed portion of the linear member, for connecting the linear member to the metal film. In other words, the additional member of claim 5 for the connection of the linear member is a part of the linear member(see, e.g., page 32, lines 11-17 and Fig. 9C, and page 35, lines 15-21 and Figs. 10B and 10C).

(On the contrary, Toki employs the support 11, which is not a part of the linear member, for the connection of the cathode electrode 8 to the spacer frame 9.

In view of the above comments and further amendments to the claims, it is evident that the presently claimed invention is completely different from Aono and/or Toki structurally and functionally. Accordingly, it is respectfully submitted that claims 1, 5 and 25-27 define a patentable invention over Aono and Toki and are, therefore, allowable and the rejection should be withdrawn.

Further, claims 2-4, 6-17 and 28 depend indirectly and directly on claims 1 or 5 respectively and are allowable for the same reasons indicated with respect to claims 1 and 5 and further because of the additional features recited therein which, when taken alone and/or in combination with the features recited in the amend claims 1 and 5, remove the invention defined therein further from the disclosures made in the cited references.

CONCLUSION

Applicants believe that this is a full and complete response to the Office Action. For the reasons discussed above, Applicants now respectfully submit that all of the


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pending claims are in complete condition for allowance. Accordingly, it is most respectfully requested that claims 1-17 and 25-29 be allowed in their present form. Claim 24 is a valid linking claim as admitted by the Examiner. Accordingly, it is believed that upon the allowance of the claim 1 the non-elected claims 18-24 are to be examined, leading to the allowance thereof. If the Examiner feels that any issues that remain require discussion, he is kindly invited to contact applicant's undersigned attorney to resolve the issues.

In view of the above comments and further amendments to the specification, drawings and claims, favorable reconsideration and allowance of all of the claims now present in the application are most respectfully requested.

Respectfully submitted,

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